

What is claimed is:

1. A floor tile comprising:

a flat, elongated base having a top surface, a bottom surface, a distal end and a proximal end;

first and second opposite sides lying in respective first and second substantially parallel side planes;

a longitudinal axis disposed between and substantially parallel to said side planes; and

one or more stepped edges formed on each of said distal and proximal ends of the base, the one or more stepped edges formed by adjoining longitudinal and transverse edge portions, the longitudinal edge portion of one said edge lying in a longitudinal plane inward of one of said side planes and extending substantially parallel thereto. 7

2. The tile as claimed in Claim 1, wherein the longitudinal edge portions of the opposite ones of the stepped edges lie in the same longitudinal plane, whereby opposite stepped edges are in longitudinal alignment.

3. The tile as claimed in Claim 1, further comprising:

first and second interlock surfaces on said base extending substantially parallel to each of said first and second sides respectively for locking the tile to one or

more similar adjacent tiles.

4. The tile as claimed in Claim 3, wherein the first and second interlock surfaces on the base face inward.

103 X 5. The tile as claimed in Claim 3, wherein each of said interlock surfaces comprises an hermaphroditic interlock structure having first and second sidewalls spaced apart to form a partially enclosed, open-sided cavity facing outwardly from said base.

103 X 6. The tile as claimed in Claim 5, wherein the first interlock sidewall is the outermost sidewall, and wherein said sides of said base and said first sidewall form there between the male part of said interlock structure.

103 X 7. The tile as claimed in Claim 5, wherein said first sidewall is inclined toward said first side with a slope of opposite polarity to that of the first sidewall adjacent said second side of said base.

8. The tile as claimed in Claim 1, further comprising an interlock surface formed in the base of said end inwardly of the edges of said step edges.

9. The tile as claimed in Claim 1, wherein the distal end of the base is formed by a first, second and third step.

10. The tile as claimed in Claim 9, wherein each step on the distal end of the base has a longitudinally aligned step on the proximal end of the base.

11. The tile as claimed in Claim 1, further comprising a plurality of said stepped edges on each of said distal and proximal ends of the base, thereby forming a stepped staircase arrangement, the staircase arrangement at one of said base ends being inverted with respect to the staircase arrangement at the opposite base end.

12. The tile as claimed in Claim 11, wherein the steps of one of said staircase arrangements are longitudinally aligned with corresponding steps of an opposite staircase arrangement.

13. The tile as claimed in Claim 1 or 2, further comprising:

a decorative layer adhered to the top surface of the base.

14. The tile as claimed in Claim 13, wherein the base is formed by an injection molding process and wherein the decorative layer is a laminate molded to the base during the process.

15. The tile as claimed in Claim 1, further comprising, a wear-resistant layer adhered to the top surface of the base.

16. The tile as claimed in Claim 14, further comprising, a wear-resistant layer adhered to the decorative layer.

103 17. The tile according to Claim 13, wherein the base is at least partially composed of recycled plastic material.

103 18. The tile as claimed in Claim 13, wherein the decorative layer simulates the surface of a wooden floor, and additionally, wherein a plurality of longitudinally extending, parallel grooves are molded in said top surface to simulate a plurality of boards.

19. The tile as claimed in Claim 18, wherein each of said grooves is aligned with longitudinal edge portions of oppositely aligned step edges.

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1037 20. The tile as claimed in Claim 1, wherein the step edges have longitudinal and transverse intersecting portions to simulate transverse staggering between individual boards a ?
wood floor

21. A floor tile assembly comprising:

102 a plurality of mutually adjacent tiles mechanically interlocked along the sides thereof for adhesive-free mounting to a surface,

wherein, each of said tiles comprises an elongated base of substantially rectangular cross-section having a longitudinal axis, a top and bottom surface and first and second substantially linear peripheral edges forming substantially straight borders, a pair of open-sided interlock structures molded in said base extending parallel to and adjacent to different ones of said first and second edges, the open side of the interlock structure adjacent the first side edge facing the bottom surface is disposed to engage a mating interlock structure of another adjacent tile from the top of said base, and a plurality of transverse ~~stepped end surfaces formed on opposite ends of said base.~~

103 22. The tile assembly according to Claim 21, further

comprising:

a decorative layer adhering to said top surface of each tile simulating a section of a wood floor.

23. The tile assembly according to Claim 21, wherein the transversely stepped end surfaces on each tile are formed by a staircase of individual steps; each step having longitudinal and transverse intersecting portions to simulate transverse staggering between individual boards a wood floor.

102/ 24. The tile assembly according to Claim 21, wherein the step staircases are positionally inverted relative to a central plane through a said base and perpendicular to said longitudinal axis, and wherein each step has a longitudinally disposed diagonal counterpart step on an opposite base end.

25. The tile assembly according to Claim 21, further comprising:

a plurality of top longitudinal grooves, each groove aligned with a longitudinal portion of a step and its opposite counterpart to simulate the longitudinally abutting edges of boards of a wood floor.

26. A floor tile molded of polymeric material, comprising:
a plurality of flat, elongated tile sections of
substantially equal length and each of the plurality of tile
sections having adjoining top surfaces of generally
rectangular shape, said plurality of tile sections being
joined in parallel longitudinally staggered relationship to
simulate the staggering of abutting elongated boards in a
wooden floor installation, a decorative layer on said top
surface simulating a wood grain in each tile section, and
matable interlock portion formed on the edges of said
sections for mechanically interlocking the tile to similarly
staggered tiles having matable interlock portions thereon.

27. A tile according to Claim 26, wherein each tile section
is longitudinally spaced from its adjoining section of tile
by substantially the same amount.

28. An interlock structure for a resilient plastic tile
having top and bottom surfaces and a peripheral edge, with
linear edge portions, the structure comprising:

a substantially linear strip formed in the bottom
surface and extending to a position below said top surface,
said strip and extending inwardly and parallel to an edge

portion and formed by the intersection of two strip wall portions, one of the wall portions of the said strip having an inclined, outwardly projected surface and the other wall extending parallel to said top surface for forming a catch portion of the structure, and an open-sided channel having opposed walls extending parallel to and adjacent said projecting surface, said channel wall having an inwardly inclined surface for engaging a catch portion of a second tile, the open side of said channel facing the bottom surface of said tile for locking into said second tile; and ~~a decorative layer adhered to the top surface.~~

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